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<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional) <b>6024-008 (LSC-P008)</b>	
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on _____  Signature <u>Filed Electronically</u></p> <p>Typed or printed name _____</p>		Application Number <b>10/040,185</b>	Filed <b>October 19, 2001</b>
		First Named Inventor <b>Haiyun Yang</b>	
		Art Unit <b>2616</b>	Examiner <b>Cynthia L. Davis</b>
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p>			
<p>The review is requested for the reason(s) stated on the attached sheet(s).  Note: No more than five (5) pages may be provided.</p>			
<p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. <b>42,433</b> Registration number _____.</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____.</p>		<p style="text-align: center; margin-bottom: 0px; font-weight: bold; font-style: italic;">/Carmen C Cook/</p> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">Signature</p> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">Carmen C. Cook</p> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">Typed or printed name</p> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">408-382-0480</p> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">Telephone number</p> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">August 3, 2006</p> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <p style="text-align: center; margin-bottom: 0px; font-weight: bold;">Date</p>	
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<p><input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.</p>			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Haiyun Yang  
Title: Frame Identifier  
Serial No.: 10/040,185 Conf. No. 9074  
Examiner: Cynthia L. Davis Group Art Unit: 2616  
Docket No.: 6024-008 (LSC-P008) Filing Date: October 19, 2001

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San Jose, California  
August 3, 2006

Mail Stop AF  
Commissioner for Patents  
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Alexandria, VA 22313-1450

**Arguments in Support of Pre-Appeal Brief Request for Review**

Dear Sir:

The below arguments are filed in support of the accompanying Pre-Appeal Brief Request for Panel Review filed with a Notice of Appeal in compliance with 37 CFR 41.31.

In the Final Office Action dated 5/31/2006, the Examiner maintains her rejection of claims 1-8 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. (See Final Office Action, p.2.) In particular, the Examiner contends, among other things, that:

- (1) The claims are directed towards mathematical manipulations that have no tangible or concrete result;
- (2) The claims give no practical application for the recited steps; and
- (3) The instant claims merely mathematically index the frames in a signal, without performing any tangible physical result or change in the signal, and as such are not statutory subject matter. *Id.*

Applicant submits that the Examiner's §101 rejection of the claims is in error and the claims are in fact directed to statutory subject matter meeting the requirements of §101. The errors in the Examiner's rejection are as follows.

(A) The Examiner mischaracterized the claimed invention.

The Examiner states in the Final Office Action that the “instant claims **merely mathematically index the frames in a signal**, without performing any tangible physical result or change in the signal” (emphasis added). The Examiner’s characterization of the claims as “**indexing the frames**” is in error. The “indexing” interpretation of the claims is a fiction created by the Examiner without any support from the claim language or from Applicant’s specification.

In arriving at the “indexing” interpretation of the claims, the Examiner did not consider each claim as a whole and did not interpret the claims in view of Applicant’s specification. As Applicant explained in the response filed on March 30, 2006, pages 7-8, **the claims of the present application are not directed to “merely indexing” frames in a signal.**

MPEP §2106 provides the examination guidelines in determining patentable subject matter for computer-related inventions. Among other things, MPEP §2106, section II, suggests that “[o]ffice personnel should **review the entire disclosure** to determine the features necessary to accomplish at least one asserted practical application” (emphasis added). Furthermore, “when evaluating the scope of a claim, **every limitation in the claim must be considered**. Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, **the claim as a whole must be considered**. See, e.g., *Diamond v. Diehr*, 450 U.S. at 188-89...” (Emphasis added).

The Examiner erroneously interpreted the claimed invention of the present claims by not reviewing the entire disclosure and not considering each claim as a whole. Therefore, the Examiner’s interpretation of the claimed invention is completely contrary to the language of the claims and to the entire disclosure. **The Examiner’s “merely indexing” interpretation of the claims is in error.**

(B) Claim 1 is directed to determining a frame number in a transmitted frame.

Claim 1 recites “**receiving a sequence of at least M+1 consecutive OFDM frames**...providing an overlap function...forming a selected pth order phase

difference...comparing the pth order difference...to determine a frame number of at least one frame of the M+1 consecutive OFDM frames" (emphasis added).

Applicant's specification, page 1, lines 7-18, describes the problem to be solved by the claimed invention. The problem to be solved set forth in Applicant's specification is: in a communication system where a sequence of frames is transmitted with each frame uniquely identified by a frame number (or a frame ID), there is a need to determine that unique frame ID when the sequence of frames is received by a receiver. Determining the unique frame ID enables the receiver to process the received information correctly.

The present claims solve a real world problem. Each of the frames in a sequence of signal frames already has a unique frame number assigned. The claims provide a method to "determine" this frame number, not "index" the frames as suggested by the Examiner.

It is imperative to note that the term "determine a frame number" recited in claim 1 clearly indicates that the signal frame already has a frame number. After the signal frame is transmitted over a channel that may be noisy, it is now necessary to find out what that frame number is from the received signal frame. Therefore, *determining* the correct frame number is critical to the proper operation of a communication system.

(C) The claimed invention provides a tangible and concrete result.

When the method of the claimed invention determines the frame number of a signal frame, the claimed invention provides a **useful, concrete and tangible result**. The frame ID determined by the claimed invention can be used to ensure correct processing of the signal frames. Therefore, the frame number determined by the claimed invention is a useful, concrete and tangible result.

Applicant's claimed invention is similar to the *AT&T* case and the *State Street* case both of which are cited in MPEP §2106, section II-A, as examples of claimed invention having a practical application because they produce useful, concrete, and tangible result.

In the *AT&T* case, the claimed invention of the patent is "a message record for long-distance telephone calls that is enhanced by adding a primary interexchange carrier ("PIC")

indicator. The addition of the indicator aids long-distance carriers in providing differential billing treatment for subscribers, depending upon whether a subscriber calls someone with the same or a different long-distance carrier...The PIC indicator therefore enables IXCs to provide differential billing for calls on the basis of the identified PIC.” *AT&T*, at 1353-1354.

If the Examiner’s “indexing” analysis in the present case is applied to the *AT&T* patent, then the *AT&T* patent will not meet the statutory subject matter requirement under §101 as the claims of the *AT&T* patent “merely index” each telephone call by the long-distance carriers. Such a conclusion is of course contradictory to established case law. Therefore, the Examiner’s analysis of the present case is clearly in error.

In the *State Street* case, the claimed invention of the patent is directed to the “transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price.” Again, if the Examiner’s “indexing” analysis is applied to the *State Street* case, then the claimed invention of the *State Street* case would merely become indexing the final share price of a stock and thus will not meet the statutory subject requirements under §101. Again, this analogy shows that the Examiner’s analysis is in error and the Examiner’s conclusion is in direct contradiction to established case law.

(D) The claims do not need to recite practical application for the recited steps.

It is important to note from the *AT&T* and *State Street* cases that while a method must provide a useful, concrete and tangible result to constitute statutory subject matter, there is no requirement that the claimed invention includes the actual use or the actual application of that result (the “PIC indicator” or the “final share price”). For example, the *AT&T* patent provides a PIC indicator that is to be used by long-distance carriers and the *State Street* patent provides a final share price that is to be used for recording and reporting purposes. However, the claimed inventions of those two patents do not include the actual application and use of their respective useful, concrete and tangible results in the claims.

Therefore, the Examiner is in error by rejecting the present claims because the claims do not recite practical application for the recited steps. There is actually no such requirement under the statutory subject matter requirement of §101.

Summary

The claimed invention of claim 1 receives information, processes the information and generates a useful, concrete and tangible result in the form of a *frame number of each frame* which may be temporarily stored and then used or relied upon by other parts of a communication system. Therefore, the claimed invention of claim 1 *as a whole* provides a useful, concrete and tangible result and accomplishes a practical application. Hence, claim 1 recites statutory subject matter under 35 U.S.C. §101. Claims 2-8, dependent upon claim 1, recite statutory subject matter under 35 U.S.C. §101 for the same reasons as their independent claim.

For the above reasons, Applicant submits that claims 1-8 are directed to statutory subject matter. The Examiner's §101 rejection of the claims is in error and should be withdrawn.

If the Examiner(s) would like to discuss any aspect of this application, the Examiner(s) are invited to contact the undersigned at (408) 382-0480.

Certificate of Electronic Transmission

I hereby certify that this correspondence is being submitted electronically to the United States Patent and Trademark Office using EFS-Web on the date shown below.

/Carmen C Cook/	Aug. 3, 2006
Attorney for Applicant(s)	Date of Signature

Respectfully submitted,

/Carmen C Cook/

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